

Amendment to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

1-64. (Canceled)

65. (new) A non-human transgenic mammal whose genome contains a transgene, wherein the transgene comprises, in operable association:

- (i) a mammary gland specific promoter;
- (ii) a DNA portion having a sequence that encodes a secretion signal sequence functional in mammary gland secretory cells; and
- (iii) a DNA portion having a sequence that encodes an active lysostaphin protein, wherein a milk-producing transgenic non-human mammal having the genotype of the transgenic non-human mammal expresses the transgene in mammary gland secretory cells such that the active lysostaphin protein is detectable in milk of the milk-producing transgenic non-human mammal.

66. (new) The non-human transgenic mammal of claim 65, wherein the transgene comprises a eukaryotic start codon located 3' to the promoter, and wherein the transgene further comprises a Kozak expression start site consensus sequence located 3' to the promoter and including the eukaryotic start codon.

67. (new) The non-human transgenic mammal of claim 65, wherein the DNA portion having a sequence that encodes an active lysostaphin protein includes one or more alterations with respect to the naturally occurring version of lysostaphin, wherein one or more of the alterations disrupts a mammalian post-translational processing event.

68. (new) The non-human transgenic mammal of claim 65, wherein one or more of the alterations disrupts a glycosylation event that would otherwise occur in mammalian cells.

69. (new) A non-human transgenic mammal whose genome contain a transgene, wherein the transgene comprises, in operable association:

- (i) a promoter selected from the group consisting of: a β -lactoglobulin promoter, an α -lactalbumin promoter; a casein promoter; a whey acidic protein promoter;
- (ii) a DNA portion having a sequence that encodes a secretion signal sequence functional in mammary gland secretory cells; and
- (iii) a DNA portion having a sequence that encodes an active lysostaphin protein,
wherein a milk-producing non-human transgenic mammal having the genotype of the transgenic non-human mammal expresses the transgene in mammary gland secretory cells such that the active lysostaphin protein is detectable in milk of the milk-producing non-human transgenic mammal.

70. (new) The non-human transgenic mammal of claim 69, wherein the promoter is a β -lactoglobulin promoter.

71. (new) The non-human transgenic mammal of claim 70, wherein the transgene comprises 4.2 kB of the 5' regulatory region of the ovine β -lactoglobulin gene.

72. (new) The non-human transgenic mammal of claim 70, wherein the transgene comprises 2.0 kB of the 3' untranslated region of the ovine β -lactoglobulin gene.

73. (new) The non-human transgenic mammal of claim 69, wherein the DNA portion having a sequence that encodes an active lysostaphin protein includes one or more alterations with respect to the naturally occurring version of lysostaphin, wherein one or more of the alterations disrupts a mammalian post-translational processing event.

74. (new) The non-human transgenic mammal of claim 69, wherein one or more of the alterations disrupts a glycosylation event that would otherwise occur in mammalian cells.

75. (new) A non-human transgenic mammal whose genome contains a transgene, wherein the transgene comprises, in operable association:

- (i) a promoter that is functional in mammary gland secretory cells;

(ii) a DNA portion having a sequence that encodes a secretion signal sequence functional in mammary gland secretory cells; and

(iii) a DNA portion having a sequence that encodes an active lysostaphin protein, wherein a milk-producing non-human transgenic mammal having the genotype of the non-human transgenic mammal expresses the transgene in mammary gland secretory cells such that the active lysostaphin protein is detectable in milk of the milk-producing non-human transgenic mammal.

76. (new) The non-human transgenic mammal of claim 75, wherein the transgene comprises a eukaryotic start codon located 3' to the promoter, and wherein the transgene further comprises a Kozak expression start site consensus sequence located 3' to the promoter and including the eukaryotic start codon.

77. (new) The non-human transgenic mammal of claim 75, wherein the DNA portion having a sequence that encodes an active lysostaphin protein includes one or more alterations with respect to the naturally occurring version of lysostaphin, wherein one or more of the alterations disrupts a mammalian post-translational processing event.

78. (new) The non-human transgenic mammal of claim 75, wherein one or more of the alterations disrupts a glycosylation event that would otherwise occur in mammalian cells.